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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,030	10/30/2001	Steven Duane Myers	1483	8958

7590 01/11/2006

EXAMINER
WILDER, PETER C

ART UNIT	PAPER NUMBER
2614	

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DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,030	MYERS, STEVEN DUANE	
	Examiner	Art Unit	
	Peter C. Wilder	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The disclosure is objected to because of the following informalities: On page 15 line 24 a reference to element 695 a program storage step should be element 690 to reference the drawing correctly.

Appropriate correction is required.

Claim 1 is objected to because of the following informalities: the part of the claim "wherein one of the channels contains programming for distribution a" should read "wherein one of the channels contains programming for distribution 'to' a". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 5, 6, 9, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib (U.S. 2003/0046706 A1) in view of Basso et al. (U.S.

2002/0124262 A1) further in view of Schupak (U.S. 6069621), still further in view of Leatherbury et al. (US 6763025 B2).

Referring to claim 1, Rakib (706) teaches a data transmission system (Figure 12B) comprising the steps of:

Transmitting data via a plurality of non-multiplexed channels (¶[0032] teaches cable line 10 carrying RF data channels and ¶[0035] teaches the channels are separated into frequency bands with no overlap so there is no multiplexing then), but fails to teach each comprising an IP-encoded, modulated RF signals, wherein one of the channels contains programming for distribution a plurality of subscribers, and the remaining said channels each contain data having an associated IP address of a specific device, receiving channels at a subscriber site; demodulating, into demodulated signals a first one of the channels containing said programming, and a second one of the channels; multiplexing the demodulated signals onto a local network; and delivering the demodulated signals from the local network to at least one said specific device connected thereto.

Basso teaches each comprising an IP-encoded (¶[0043] teaches the home network is connected to the internet which means IP-encoded signals), modulated RF signals (¶[0043] teaches the signals are RF), wherein one of the channels contains programming for distribution a plurality of subscribers (¶[0027] teaches steaming programming downstream in an IP environment for multicasting which means more than

one subscriber receives the signals and ¶[0030] teaches delivering live TV channels in a multicast environment), and the remaining said channels each contain data having an associated IP address of a specific device (¶[0024] teaches the customer or subscriber is connected to a unicast or multicast connection and ¶[0007] teaches the system operates in an IP network environment which means all data on the network is addressed to someone by the definition of IP protocol each packet has to have an address).

At the time the invention was made it would have been clearly obvious for one skilled in the art to modify the information distribution with non-multiplexed channels system of Rakib (706) with the multicast and unicast content delivery system of Basso for the purpose of providing a customer to view one or more live or time shifted performances on a system that utilizes broadband technologies on the internet (¶[0007], Basso).

Schupak teaches receiving channels at a subscriber site (Column 2 lines 60-65 teaches receiving a audio/visual signal from cable television source or broadcast television antenna which distributes the signals in frequency channels);

demodulating, into demodulated signals a first one of the channels containing said programming, and a second one of the channels (Column 3 lines 51-57 teaches multiple tuners being connected to input element 1 of an audio/visual signal, but is silent on the demodulation of the signals before being multiplexed, however Figure 3 teaches tuners 26c and 26b being connected to descramblers 27c and b respectively and a

signal has to be demodulated first before it can be descrambled so demodulation has to occur);

multiplexing the demodulated signals onto a local network (Figure 3 teaches element 28 a multiplexer); but fails teach delivering the demodulated signals from the local network to at least one said specific device connected thereto. (Figure 3 teaches a device 25b a television receiver, Column 4 lines 37-44 teaches delivering a portion of a multiplexed signal to a specific device or receiver).

At the time the invention was made it would have been obvious for one skilled in to modify the non multiplexed channels transmitting data hub function/device of Rakib (706) with the subscriber unit demodulation and multiplexing function/device of Schupak for the purpose of providing a computer for supplying any of a tuned channel, stored signal, or a descrambled channel to a television (Column 2 lines 10-14, Schupak).

Leatherbury teaches delivering the demodulated signals from the local network to at least one said specific device connected thereto (Column 24 lines 14-25 and Figure 10 teach a receiving device CPE (computer premise equipment) at subscribers destination that receives the data signals and forwards/delivers them to specific subscriber devices based on their IP address).

At the time the invention was made it would have been obvious for one skilled in the art to modify the non multiplexed channels transmitting data hub function/device of Rakib (706) using the forwarding based on IP address device/function of Leatherbury

for the purpose of forwarding the digital information by determining digital addresses associated with the subscriber destinations (Column 5l lines 19-21, Leatherbury).

Referring to claim 2, Basso teaches the data transmission system of claim 1, wherein the first one of the channels comprises a multicast-encoded signal (¶[0024] teaches transmitting multicast transmissions), and the second one of the channels comprises a unicast signal (¶[0024] teaches transmitting a unicast transmission).

Referring to claim 4, Rakib (706) teaches the data transmission system of claim 2, wherein the unicast signal comprises an Internet transmission (¶[0032] teaches digital data includes internet access so a signal from the Internet is considered an Internet transmission).

Referring to claim 5, Basso teaches the data transmission system of claim 2, wherein the multicast signal comprises a television signal (¶[0030] teaches multicast live channel service equivalent to current TV being delivered).

Referring to claim 6, Schupak teaches the data transmission system, of claim 2, wherein one of the demodulated signals is delivered to a display device and the other of the demodulated signals is delivered to a separate device (Figure 3 teaches a television receiver element 25c which is a display device and a VCR element 24 which is a separate device).

Referring to claim 9, Rakib (706), teaches wherein the channels are transmitted from a hub to the subscriber site (Figure 12B teaches a headend element 502 connected to a subscriber site and ¶[0032] teaches delivering video data by way of channels on an RF carrier), and wherein the system comprises the step of transmitting a programming request signal from the subscriber site to the hub indicative of a request for sending specific programming from the hub to the subscriber site via one of the channels (¶[0033] teaches video-on-demand being a feature of the system which means the subscriber site has to send a request for the specific programming to the hub and ¶[0032] teaches the system is DOCSIS standard so it supports two way communication between the subscriber site and the headend or hub).

Referring to claim 10, Rakib (706) teaches the data transmission system of claim 9, comprising the step of transmitting said programming to the subscriber site in response to receiving said programming request signal (¶[0033] teaches digital signals can be video-on-demand which is known in the art to mean a program would not be delivered to a subscriber site unless it was requested and when it is request the program is transmitted to the subscriber site).

Referring to claim 11, corresponding to claim 1, Schupak teaches the data transmission system of claim 1, wherein the subscriber site comprises a storage device

for storing said programming and playing back the programming at a subsequent time (Column 3 lines 29-31 teaches mass storage unit element 19 in Figure 2).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib (U.S. 2003/0046706 A1) in view of Basso et al. (U.S. 2002/0124262 A1) further in view of Schupak (U.S. 6069621), still further in view of Leatherbury et al. (US 6763025 B2) till further in view of Adams et al. (U.S. 6124878).

Referring to claim 3, Rakib (706), Basso, Schupak, and Leatherbury teach all the limitations of claim 2, but fail to teach the data transmission system of claim 2, wherein the subscriber site performs the additional steps of: joining a multicast transmission; and demodulating a first one of the channels containing said programming only if the subscriber site has joined the multicast transmission.

Adams teaches the data transmission system of claim 2, wherein the subscriber site performs the additional steps of: joining a multicast transmission (Column 6 lines 37-42 teaches sending a signal from the headend to the subscriber unit to grant access to a pay-per-view event); and demodulating a first one of the channels containing said programming only if the subscriber site has joined the multicast transmission (Column 5 lines 52-54 and Figure 1 teach a tuner that enables a tuner to tune to a signal and then transmits the signal to a TV, and Figure 1 teaches a wire connects the tuner to the microprocessor so the microprocessor can allow the tuner to tune to a pay-per-view

channel thus the channel is only demodulated is a subscriber has access to the channel).

At the time the invention was made it would have been obvious for one skilled in the art to modify the transmitting of digital data using IP function/device of Rakib (706), using the multicast and unicast content delivery system of Basso still further using the subscriber unit demodulation and multiplexing function/device of Schupak, using the signal delivery by IP address function/device of Leatherbury using the pay-per-view function/device of Adams for the purpose of provide optimum bandwidth utilization in a TV system's shared forward data channel (Column 4 lines 1-3, Adams)

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib (U.S. 2003/0046706 A1) in view of Basso et al. (U.S. 2002/0124262 A1) further in view of Schupak (U.S. 6069621), still further in view of Leatherbury et al. (US 6763025 B2) till further in view of Ishizaki et al. (U.S. 2002/0062483 A1)

Referring to claim 7, corresponding to claim 1, Leatherbury teaches each of the digital signals has an address matching that of a specific said device connected to the local network (Column 24 lines 14-25 and Figure 10 teach a receiving device CPE (computer premise equipment) at subscribers destination that receives the data signals an forwards/delivers them to specific subscriber devices based on there IP address),

but fails to teach the data transmission system wherein the demodulated step provides two digital signals.

Ishizaki teaches the data transmission system of claim 1, wherein the demodulated step provides two digital signals (Figure 6 teaches elements 412 and 413 two tuners receiving signals then passing the signals onto QAM demodulators 416 and 418 respectively which means the signals have to be digital in order to do QAM demodulation).

At the time the invention was made it would have been obvious for one skilled in the art to modify the transmitting of digital data using IP function/device of Rakib (706), using the multicast and unicast content delivery system of Basso still further using the subscriber unit demodulation and multiplexing function/device of Schupak, using the signal delivery by IP address function/device of Leatherbury using the digital signal function/device of Ishizaki for the purpose allowing the error corrector to performs an error correcting process on the data demodulated by the 64 QAM demodulator since error correction can not be done with an analog signal.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib (U.S. 2003/0046706 A1) in view of Basso et al. (U.S. 2002/0124262 A1) further in view of Schupak (U.S. 6069621), still further in view of Leatherbury et al. (US 6763025 B2) till further in view of Iwamoto et al. (U.S. 6930788 B1)

Referring to claim 8, Rakib (706), Basso, Schupak, and Leatherbury teach all the limitations of claim 1, but fail to teach wherein the first one of the channels comprises a broadcast signal, and the second one of the channels comprises a unicast signal.

Iwamoto teaches wherein the first one of the channels comprises a broadcast signal (Column 4 lines 63-67 and Column 5 lines 1-3 teaches a broadcast signal being transmitted in IP packets), and the second one of the channels comprises a unicast signal (Column 4 lines 63-67 and Column 5 lines 1-3 teaches a video-on-demand signal being transmitted which is a unicast signal).

At the time the invention was made it would have been obvious for one skilled in the art to modify the transmitting of digital data using IP function/device of Rakib (706), using the multicast and unicast content delivery system of Basso still further using the subscriber unit demodulation and multiplexing function/device of Schupak, using the signal delivery by IP address function/device of Leatherbury using the distribution of broadcast and unicast signals function/device of Iwamoto for the purpose of transmitting data packets to everyone on the network.

Claim 12, 14, 15, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Schupak (U.S. 6069621).

Referring to claim 12, Rakib (132) teaches a system for transmitting data from a hub to a plurality of subscriber sites (Figure 1 teaches element 10 a headend and element 30 is a home gateway or a subscriber site) comprising:

encoding equipment for encoding and encapsulating of data in IP format (Column 11 lines 27-37 teaches a recorder circuit encoding data in IP packets), coupled to a source of programming content (Figure 4 teaches element 53 coupled to element 14 programming content);

a data source (Figure 4 and Column 9 lines 7-9 teach element 15 as the Internet which is a data source)

a transmitter (Figure 4 teaches element 69 a modem which is a transmitter), operatively coupled to said encoding equipment and to said data source (Figure 4 teaches element 69 coupled to element 53 and elements 14 and 15), for transmitting a plurality of non-multiplexed RF channels comprising said data in IP format and at least one RF channel comprising said programming content in IP format (Column 11 lines 27-37 teaches a recorder circuit encoding data in IP packets, Column 9 lines 19-27 teaches the hub receiving a programming request and outputting on the downstream medium, Column 18 lines 35-49 teaches the hub outputting data on non multiplexed RF channels); but fails to teach a subscriber unit, located at each one of the sites , comprising: a receiver for receiving the RF channels from a transmitter;

a local network, coupled to at least one subscriber device;

and a dual channel demodulator, coupled to the receiver, that demodulates the RF channels and multiplexes two resultant digital signals onto the local network, and wherein the other of the digital signals contains said programming content.

Schupak teaches a subscriber unit, located at each one of the sites (Column 2 lines 3-9 teaches a user inputting data so the unit has to be at a subscriber site), comprising: a receiver for receiving the RF channels from a transmitter (Column 2 lines 61-64 teaches a receiver which could be an antenna for receiving cable broadcast which means the data is being transmitted over the RF frequency spectrum and a receiver has to receive something that is transmitted, Column 3 lines 12-13 teaches a tuner tuning a channel so the RF signal is divided into channels);

a local network (Figure 3 at the bottom teaches a local network connected to the unit at element 3), coupled to at least one subscriber device (Figure 3 teaches element 22 the subscriber device and the local network being coupled to it through port element 3 to multiple devices);

and a dual channel demodulator (Figure 3 teaches tuners element 26c and 26b coupled to descramblers 27c and 27b respectively but is silent the demodulation of the signal however it is inherent that the signals would have to be demodulated if the signals were to be passed to the descrambler), coupled to the receiver (Figure 3 is silent on a demodulator but it is inherent as noted previously that demodulator would have to be coupled to the tuner which is coupled to the receiver element 1), that demodulates the RF channels and multiplexes two resultant signals onto the local network (Figure 3 teaches multiple tuners elements 26a-b being connected to receiver 1, the examiner views these two tuners together connected to their respective descramblers as a dual channel demodulator and the tuners are coupled to the multiplexer which is connected to the local LAN).

At the time the invention was made it would have been obvious for one skilled in to modify the transmitting data hub function/device of Rakib (132) with the subscriber unit function/device of Schupak for the purpose of providing a computer for supplying any of a tuned channel, stored signal, or a descrambled channel to a television (Column 2 lines 10-14, Schupak).

Referring to claim 14, corresponding to claim 12, Rakib (132) teaches wherein said data source comprises an Internet connection (Column 9 lines 7-9 teach input streams can come from the Internet).

Referring to claim 15, corresponding to claim 12, Schupak teaches the system of claim 12, further comprising a storage device for storing said programming content and playing back the programming content at a subsequent time (Column 3 lines 29-32).

Referring to claim 16, corresponding to claim 12, Rakib (132) teaches wherein said subscriber device comprises a personal computer (Figure 1 element 110).

Referring to claim 17, corresponding to claim 12, Rakib (132) teaches a first and second said subscriber device, wherein the first said subscriber device comprises a set-top box connected to a television set and the second said subscriber device comprises a personal computer (Figure 1 element 110 is a personal computer and element 20 is a set-top decoder which the examiner views to be the same as a set-top box).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib (132) et al. (U.S. 6857132 B1) in view of Schupak (U.S. 6069621) further in view of Safadi et al (U.S. 2001/0051037) still further in view of Leatherbury et al (U.S. 6763025 B2).

Referring to claim 13, Rakib and Shupak teach all the limitations of claim 12, but fail to teach the system of claim 12, wherein each of the subscriber sites comprises: an upstream transmitter for transmitting a signal to the hub indicative of a request for sending specific programming from the hub to the subscriber site via one of the channels; and a subscriber site device for initiating transmission of said request; wherein said hub comprises: an upstream receiver for receiving said request from the upstream transmitter; and a return channel server for processing said request.

Safadi teaches wherein each of the subscriber sites comprises: an upstream transmitter for transmitting a signal to the hub indicative of a request for sending specific programming from the hub to the subscriber site via one of the channels (¶[0040] teaches DOCSIS communication over the bi-directional link and ¶[0037] teaches downstream programs are sent over channels so upstream communication is sent via a channel, ¶[0063] teaches content being delivered to a set top terminal when requested by a given user by selecting the download option, its also teaches the content can be a movie or program); and a subscriber site device for initiating transmission of said

request (Figure 1 teaches a set-top terminal which is a subscriber device); but fails to teach wherein said hub comprises: an upstream receiver for receiving said request from the upstream transmitter; and a return channel server for processing said request.

At the time the invention was made it would have been obvious for one skilled in to modify the transmitting data hub function/device of Rakib (132) with the subscriber unit function/device of Schupak using the video on demand requesting function/device of Safadi for the purpose of allowing the user to determine when they wish to receive of program incase the given times listed do not work for the user (¶[0063], Safadi).

Leatherbury teaches wherein said hub comprises: an upstream receiver for receiving said request from the upstream transmitter (Column 6 lines 58-59); and a return channel server for processing said request (Column 11 lines 20-22).

At the time the invention was made it would have been obvious for one skilled in to modify the transmitting data hub function/device of Rakib (132) with the subscriber unit function/device of Schupak using the video on demand requesting function/device of Leatherbury for the purpose of having an automated way to be able to respond to subscribers video-on-demand requests.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Donahue et al. (U.S. 6411616 B1).

Referring to claim 18 Rakib (132) teaches a system for transmitting data from a hub to a plurality of sites (Figure 1 teaches a system element 10 is a hub and element 30 is a subscriber site, also another site labeled HOME #1 is a subscriber site) comprising:

Encoding equipment for encoding and encapsulation of data in IP format (Column 11 lines 30-37 teaches the elements 53, 55, and 57 in Figure 4 formatting the video signal in IP format), coupled to a source of programming content (Column 9 line 1 teaches the input signal 14 is a video stream and Figure 4 teaches recording circuit element 53 is coupled to element 14 through elements 31, 28, and 59);

A transmitter for transmitting a plurality of channels comprising said Internet transmissions in IP format (Column 9 lines 7-9 teaches input streams can come from the Internet, Column 11 lines 31-37 teaches the streams can be output in IP format, Column 10 lines 9-14 teaches multiple channels) and at least one channel comprising said programming content in IP format (Column 9 lines 7-9 teaches input streams can come from the Internet which means the data is in IP format); but fails to teach a first router coupled to said encoding equipment; a second router coupled to a source of Internet data; a switch for transferring data from said first router and said second router to said transmitter

Donahue teaches a first router coupled to said encoding equipment (Figure 4 teaches element 110 a router coupled to server 105, Column 11 lines 66-67 and Column 12 lines 1-5 teaches the PC's 105 are connected to live analog video or audio sources and can convert the analog data to digital and packet the data in TCP/IP

format); a second router coupled to a source of Internet data (Figure 7 teaches element 205 a access router coupled to element 165 the Internet); a switch for transferring data from said first router and said second router to said transmitter (Figure 7 element 207 teaches a switch coupled to elements 120, 205, and 210, Element 210 is a distribution router which transmits data to elements 235 which are home users/clients according to Column 14 line 34, Figure 2 and Column 14 lines 56-60 teaches element 100 in Figure 4 is connected to element 200 in Figure 7 by satellite element 55)

At the time the invention was made it would have been obvious for one skilled in the art to modify the data transmission system of Rakib (132) with the data transmission system with coupled routers and switches function/device of Donahue for the purpose of having a direct connection between each content storage device (server) and each listener (client) (Column 3 lines 40-41, Donahue).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Donahue et al. (U.S. 6411616 B1) further in view of Hendricks et al. (U.S. 6201536 B1).

Referring to claim 19, Rakib (132) and Donahue teach all the limitations of claim 28 but fail to teach a system of claim 18, comprising a return channel server that sends specific said programming content to one of the sites in response to a request therefrom.

Hendricks teaches a system of claim 18, comprising a return channel server that sends specific said programming content to one of the sites in response to a request therefrom (Column 10 lines 7-16 teaches the headend which includes the network manager processing video on demand requests, Figure 5 teaches element 214 a network manager which has control software element 264).

At the time the invention was made it would have been obvious for one skilled in the art to modify the data transmission system of Rakib (312) with the data transmission system with coupled routers and switches function/device of Donahue further with the return server of Hendricks for the purpose of providing a network manager capable of targeting television commercials to specific consumers and viewers (Column 5 lines 28-30, Hendricks)

Claim 20-24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Adams et al. (U.S. 6124878) further in view of Schupak (U.S. 6069621) still further in view of Leatherbury et al. 6763025 B2)

Referring to claim 20, Rakib (706) teaches a data transmission system (Figure 12B) comprising the steps of: transmitting information via at least two component signals wherein each of the component signals contains an IP address (¶[0034] teaches transmitting digital data in DOCSIS format on the RF carriers and the packets are

formatted with an addressing scheme, ¶[0036] teaches the downstream DOCSIS packets can have IP protocols) but, fails to teach wherein at least two different types of services are carried by the component signals, receiving the component signals; demodulating the component signals into two digital signals carrying said two different types of service; multiplexing the digital signals onto a local network; and delivering each of the digital signals from the network to a respective device having the IP address matching that contained in one of the component signals.

Adams teaches wherein at least two different types of services are carried by the component signals (Column 6 lines 43-45 and Figure 3 element 46 teach Internet requested data being sent to the set-tops and routed to a PC so web pages are one service, and Column 6 lines 66-67 teaches broadcast data is sent to all set-tops and Column 6 lines 38-42 teaches the broadcast data can be pay-per-view, Column 6 lines 4-9 teaches the headend can transmit digital media including video and audio to the set-top box).

At the time the invention was made it would have been obvious for one skilled in the art to modify the transmitting of digital data using IP function/device of Rakib (706) using the digital component signals of Adams for the purpose of providing optimum bandwidth utilization in a TV system's shared forward data channel (Column 4 lines 1-3, Adams)

Schupak teaches receiving the component signals (Column 2 lines 61-64); Demodulating the component signals into two signals carrying said two different types of service (Figure 3 teaches multiple tuners 26a-c receiving signals from input element 1 but is silent on if the tuner also demodulates the signal, Column 3 lines 14-17 teaches the descrambler element 17 decoding the tuned channel which means the tuner must also demodulate the signal or there is no way the signal could be descrambled);

Multiplexing the digital signals onto a local network (Figure 3 teaches multiplexer element 28 which puts the signals on the local network through element 3); but is silent of if the signals are digital, delivering each of the digital signals from the network to a respective device having the IP address matching that contained in one of the component signals.

At the time the invention was made it would have been obvious for one skilled in the art to modify the transmitting of digital data using IP function/device of Rakib (706) with the multiplexed LAN network of Schupak for the purpose of providing a computer for supplying any of a tuned channel, stored signal, or a descrambled channel to a television (Column 2 lines 10-14, Schupak).

Leatherbury teaches delivering each of the digital signals from the network to a respective device having the IP address matching that contained in one of the component signals (Column 24 lines 14-25 and Figure 10 teach a receiving device CPE (computer premise equipment) at subscribers destination that receives the data signals an forwards/delivers them to specific subscriber devices based on there IP address).

At the time the invention was made it would have been obvious for one skilled in the art to modify the digital distribution system of Rakib (706) using the forwarding based on IP address device/function of Leatherbury for the purpose of forwarding the digital information by determining digital addresses associated with the subscriber destinations (Column 5l lines 19-21, Leatherbury).

Referring to claim 21, Adams teaches the data transmission system of claim 20, wherein the first one of the component signals comprises multicast transmission (Column 6 lines 66-67 teaches a broadcast signal which is the same as a multicast transmission) and the second one of the component signals comprises unicast signal (Adams teaches Column 6 lines 43-44 an Internet request which can be a webpage Column 7 lines 4-7 teaches on set top receiving the Internet request which is unicast).

Referring to claim 22, Adams teaches the data transmission system of claim 21, comprising the additional step of: receiving the component signals at a subscriber site (Column 3 lines 4-9 teaches sending broadcast data to the set-top); and demodulating a first one of the component signals only if the subscriber site has joined the multicast transmission (Column 6 lines 40-42 teaches data being sent to set tops to grant access to pay-per-view signals, so the data is only demodulated if the set top has joined the multicast transmission, Figure 1 element 28 teaches a tuner which by definition on receiving a modulated signal would demodulate the signal).

Referring to claim 23, Adams teaches the data transmission system of claim 21, wherein the unicast signal comprises an Internet transmission (Column 6 lines 43-45 teaches a transmission received from the internet).

Referring to claim 24, Adams teaches the data transmission system of claim 21, wherein the multicast transmission comprises a television signal (Column 6 lines 26-28 teaches the pay-per-view channel is carried on FAT forward-application channels element 25 in Figure 1 and Column 5 lines 52-54 teaches the channel can be displayed on a TV so the multicast signal is a television signal).

Referring to claim 31, Rakib (706) teaches the data transmission system of claim 20, wherein each of the component signals is transmitted using a digital modulation technique (¶[0032] teaches digital data carriers transmitting digital data such as digital video and Internet access and ¶[0035] teaches transmitting the data under the DOCSIS standards which means a digital modulation technique has to exist to transport the data from a headend to a subscriber site).

Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Adams et al. (U.S. 6124878) further in view of

Schupak (U.S. 6069621) still further in view of Leatherbury et al. 6763025 B2) still further in view of Safadi et al. (U.S. 2001/0051037 A1)

Referring to claim 25, Adams teaches the data transmission system of claim 20, wherein: the component signals are transmitted from a hub to a subscriber site (Column 5 lines 45-54 teaches forward-application channels are used to transmit data from a headend element 11 in Figure 1 to a set-top which is at a subscriber site); but fails to teach the system comprises the step of transmitting a programming request signal from the subscriber site to the hub indicative of a request for sending specific programming from the hub to the subscriber site via one of the component signals.

Safadi teaches system comprises the step of transmitting a programming request signal from the subscriber site to the hub indicative of a request for sending specific programming from the hub to the subscriber site via one of the component signals (¶[0063] teaches content being delivered to a set top terminal when requested by a given user, its also says the content can be a movie or program, Figure 1 element 101 is a DOCSIS modem which is a bi directional modem so the communication line is bidirectional an RF and thus the signal is transmitted via one of the component signals).

At the time the invention was made it would have been obvious for one skilled in the art to combine the system carrying component signals function/device of Rakib (706) with the two types of component signals function/device of Adams with the multiplexing onto a local network function/device of Schupak with the IP addressing to specific devices function/device of Leatherbury with the video-on-demand requesting

function/device of Safadi for the purpose of allowing the user determine when they wish to receive of program incase the given times listed do not work for the user (¶[0063], Safadi).

Referring to claim 26, corresponding to claim 25, Safadi teaches for the same motivation as above the data transmission system of claim 25, comprising the step of transmitting said specific programming to the subscriber site in response to receiving said programming request signal (¶[0063] teaches the viewer selecting the download option which means the program is being sent to the subscriber site).

Referring to claim 27, corresponding to claim 26, Safadi teaches for the same motivation as above the data transmission system of claim 26, wherein the subscriber site comprises a storage device for storing said programming and playing back the programming at a subsequent time (¶[0064] teaches a storage of the program selecting or accessing the stored content for play back which means the program can accessed at any time after the recording is downloaded).

Claims 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Adams et al. (U.S. 6124878) further in view of Schupak (U.S. 6069621) still further in view of Leatherbury et al. 6763025 B2) still further in view of Gould et al. (U.S. 6393158 B1).

Referring to claim 28, Rakid (706), Adams, Schupak, and Leatherbury teach all the limitations of claim 20, but fail to teach the data transmission system of claim 20, wherein each of the component signals is transmitted using a coded modulation technique.

Gould teaches the data transmission system of claim 20, wherein each of the component signals is transmitted using a coded modulation technique (Column 4 lines 46-55 and Figure 2 teach a tuner in element 48 being able to receive Wideband CDMA protocols thus an external source element 44 would have to transmit the component signals in CDMA, Column 5 lines 24-30 teaches the combination of the external content, external interface, and communications path can come from a cable television provider, Column 5 lines 14-15 teaches the Internet can be supported by the external source).

At the time the invention was made it would have been obvious for one skilled in the art to combine the system carrying component signals function/device of Rakib (706) with the two types of component signals function/device of Adams with the multiplexing onto a local network function/device of Schupak with the IP addressing to specific devices function/device of Leatherbury with the coded modulation technique function/device of Gould for the purpose of allowing the digital data packets to be compressed for better bandwidth utilization.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (U.S. 6857132 B1) in view of Adams et al. (U.S. 6124878) further in view of Schupak (U.S. 6069621) still further in view of Leatherbury et al. 6763025 B2)

still further in view of Gould et al. (U.S. 6393158 B1) still further in view of Ishizaki et al. (U.S. 2002/0062483 A1).

Referring to claim 29, Rakid (706), Adams, Schupak, and Leatherbury teach all the limitations of claim 20, but fail to teach wherein the transmitting step comprises transmitting the component signals using a coded modulation technique.

Gould teaches for the same motivation as in claim 28 the data transmission system of claim 20, wherein the transmitting step comprises transmitting the component signals using a coded modulation technique (Column 4 lines 46-55 and Figure 2 teach a tuner in element 48 being able to receive Wideband CDMA protocols thus an external source element 44 would have to transmit the component signals in CDMA, Column 5 lines 24-30 teaches the combination of the external content, external interface, and communications path can come from a cable television provider, Column 5 lines 14-15 teaches the Internet can be supported by the external source), but fails to teach wherein the demodulating step comprises decoding the component signals into said two digital signals.

At the time the invention was made it would have been obvious for one skilled in the art to combine the system carrying component signals function/device of Rakib (706) with the two types of component signals function/device of Adams with the multiplexing onto a local network function/device of Schupak with the IP addressing to specific devices function/device of Leatherbury with the coded modulation technique

function/device of Gould for the purpose of allowing the digital data packets to be compressed for better bandwidth utilization.

Schupak teaches wherein the demodulating step comprises decoding the component signals into said two signals (Figure 3 teaches the incoming signal being split into among two tuners elements 26a and 26b and then both signals going through descramblers 27a and 27b respectively, Schupak is silent on the demodulation of the signal but it is inherent that the signals would have to be demodulated before the signals are descrambled), but fails to teach the signals are digital.

Ishizaki teaches wherein the demodulating step comprises two digital signals (Figure 6 teaches elements 412 and 413 two tuners receiving signals then passing the signals onto QAM demodulators 416 and 418 respectively which means the signals have to be digital in order to do QAM demodulation).

At the time the invention was made it would have been obvious for one skilled in the art to combine the system carrying component signals function/device of Rakib (706) with the two types of component signals function/device of Adams with the multiplexing onto a local network function/device of Schupak with the IP addressing to specific devices function/device of Leatherbury with the coded modulation technique function/device of Gould with the digital signal function/device of Ishizaki for the purpose allowing the error corrector to performs an error correcting process on the data demodulated by the 64 QAM demodulator.

Referring to claim 30, Gould teaches the data transmission system of claim 29, wherein the coded modulation technique comprises code-division multiple access (Column 4 lines 46-55 and Figure 2 teach a tuner in element 48 being able to receive Wideband CDMA protocols thus an external source element 44 would have to transmit the component signals in CDMA).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. Wilder whose telephone number is 571-272-2826. The examiner can normally be reached on 8 AM - 4PM Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PTO 1449 (Modified)

37 CFR 1.97

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Atty Docket Number	Serial Number
1483	Not Yet Assigned
Applicant: Steven Duane Myers	
Filing Date: Herewith	Group Art Unit: Not Yet Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	Translation YES	Translation NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER Peter Wilder DATE CONSIDERED 12/11/05

Notice of References Cited	Application/Control No. 10/020,030	Applicant(s)/Patent Under Reexamination MYERS, STEVEN DUANE	
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